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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/043,761 | 01/10/2002 | Diao Xu | 9346-018US (TW/PSC/1.4929) | 7264 |

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PHILADELPHIA, PA 19103-7013

EXAMINER

FOX, JOHN C

| ART UNIT | PAPER NUMBER |
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3753

DATE MAILED: 05/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/043761

Applicant(s)

Examiner

Pux

Group Art Unit

3753

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1/10/2002 & 3/26/2002
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-18 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-4, 12-18 is/are rejected.
- ☒ Claim(s) 5-11 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 4
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Art Unit: 3753

This action is responsive to the communication filed January 10, 2002 and March 26, 2002.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 12, 14-15, and 18 are rejected under 35 U.S.C. §102(b) as being anticipated by Gravesen et al. Gravesen et al show an electrostatic microvalve where in Figure 7 there is shown one inlet 30 and two independently activated outlets 31, 32. The Figure 7 valve is biased closed and activated to open, see column 8, lines 5-12. The Gravesen et al valve is read as being made by micromachining techniques since it is a micro valve, and is read as being integral.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention

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were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 13 and 15-16 are rejected under 35 U.S.C. § 103 as being unpatentable over Gravesen et al in view of Shikida et al. Gravesen et al show the claimed valve except for rectangular orifices and an explicit disclosure of being made from silicon. Shikida et al shows another microvalve which has rectangular orifices and is made from silicon. It would have been obvious for one of ordinary skill in the art to have used such rectangular orifices as taught by Shikida et al in the valve of Gravesen et al to improve the sealing, for example, and to make the Gravesen et al out of silicon to take advantage of the known silicon micromachining techniques.

Claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Prior Art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Examiner Fox at (703) 308-2595 or John.Fox@uspto.gov. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861. The fax number for TC 3700 is

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703-872-9302. For responses after final the fax number is 703-872-9303. The Supervisory Primary Examiner for Art Unit 3753 is Mikado Buiz who can be reached at (703) 308-2580 or at Michael.Buiz@uspto.gov.



JOHN FOX
PRIMARY EXAMINER
ART UNIT 3753

jcf
May 27, 2003